EPAs Comments on the Phase I RFI/RI
Workplan for West Spray Field (OU 11)

General Comments

In general, this workplan is insufficient to meet the objectives of this Phase I investigation. This is due in part to several shortcomings in the contents; including the following: 1) inconsistencies throughout the workplan; 2) the absence of site specific Data Quality Objectives; 3) an inadequate Field Sampling Plan (FSP); and 4) an inadequate Baseline Risk Assessment Plan.

Inconsistencies exist throughout the workplan with regard to Phase I investigation objectives. Section 1.1 of this workplan states that the objective of this Phase I investigation is to characterize contaminant sources and soil contamination resulting from past application of waste waters on the West Spray Field. This is consistent with the process for closure of RCRA units external to buildings described in the Interagency Agreement (IAG). However, the objective is changed later in the workplan. This creates confusion on what the scope of this workplan is. This needs to be clarified and resolved so that the field investigation can be conducted properly.

The Data Quality Objectives process must be discussed in detail. This must include a discussion on identification of decision types, data uses/needs and the data collection program. Special care should be taken in designing Data Quality Objectives to ensure that the resulted data is adequate and provides the necessary information for closure of the unit.

EPA is concerned that the FSP presented in this workplan is insufficient to fully characterize the sources of contamination. There appears to be no coherent rationale behind the design of the FSP. There is no justification for the number and location of the proposed boreholes presented in this workplan. It is unknown if information on the operating history of the site and available contamination data were utilized when designing the FSP. This needs to be provided. EPA recommends a careful review and evaluation of all existing information to ensure that the FSP is designed properly to fulfill the objectives of this Phase I investigation.

The Baseline Risk Assessment Plan presented in Appendix I does not outline the site-specific approach and assumptions to assess or determine potential human health risk and environmental impacts resulted from sources of contamination in the West Spray Field. The information contained in Appendix I constitutes a summary of EPA guidance for performing risk assessments and it is not a risk assessment plan. When properly planned, the Baseline Risk Assessment provides key information for determining whether

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or not a remedial action is needed for the site. In addition to addressing specific comments below, EPA recommends DOE review PRC's specific comments with regard to the Baseline Risk Assessment Plan for the Draft Phase I RFI/RI Workplan for the Solar Ponds (OU4). These comments are directly applicable to OU 11 and DOE must revise the workplan as necessary to address them.

Specific Comments

Executive Summary. Although for Interim Status Closure units the Baseline Risk Assessment is considered in determining the need for an Interim Remedial Action (IRA), in general IRAs can be justified to expedite the closure of the unit or to stop continuing migration of contaminants from a highly to a less contaminated area.

Introduction, page 1. This workplan corresponds to West Spray Field, Operable Unit (OU) 11. This section needs to be updated.

Section 1.1.2, Technical Objectives, page 2. The objective of this Phase I investigation is to characterize the sources and soil contamination. Extent, fate and transport of contaminants will be addressed in Phase II. This needs to be corrected.

Section 2.1.4, Waste Characterization, page 10. Please explain the significance of 1988-89 sampling data from the interceptor trench pump house if operations of the West Spray Field ceased in 1985.

Section 2.3.2, Soil testing Performed to Date, page 20. This section needs to discuss the location selection criteria for the 12 test pits excavated during the 1988 sampling program. Was data from the 1986 soil sampling program used for the locations selection?

Section 2.3.2, Metals, page 20. There appears to be some discrepancy between the characterization data from the spray application liquids (Appendix E) and its interpretation discussed in this section. While it is true that lead and mercury were found in the spray application liquids, their concentrations were quite low. In addition, other metals were found at higher concentrations. Therefore, since it was limited to only lead and mercury analysis, the 1988 sampling program provides very limited information on metal contamination in the West Spray Field. DOE needs to reexamine the metal analyte list for future sampling activities in order to fully characterize the sources and soil contamination.

Section 3.3, Baseline Risk Assessment, page 31. This section must mention that the Human Health Risk Assessment and the Environmental Evaluation for Phase I investigation will be

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conducted at the source of contamination. More comprehensive environmental impact studies will be performed during Phase II when information regarding the extent, fate and transport of contaminants becomes available.

Section 3.4, Data Needs and Sampling Objectives, page 31. The objective of this Phase I investigation is to characterize the sources and soils of contamination. Therefore, data needs and sampling objectives must be limited and designed to provide sufficient information to meet this objective. Data needs and sampling objectives to evaluate extent, fate and transport of contamination will be designed and considered during the Phase II investigation. This section needs to be corrected.

Section 3.4.1, Data Quality Objectives, page 32. Specific information regarding data validation levels belongs in the workplan. Therefore, this section needs to specify the analytical level appropriate for the data to fulfill the objectives of this Phase I investigation. EPA recommends to use at a minimum level IV which is described in the Quality Assurance Project Plan (Appendix A, Table A1.3). The basis for this recommendation is that the data to be gather during Phase I will be used to performed a Human Health Risk Assessment and Environmental Evaluation at the source of contamination.

Section 3.4.2, Applicable, or Relevant and Appropriate Requirements (ARARs), page 32. Information detailing the ARARs process, categories of potential ARARS, identification of potential ARARs and a discussion of the regulations which require the attainment of ARARs in selected remedies belongs in this workplan. This section must include this information.

Section 4.0, Field Sampling Investigation Plan, page 33. This section must be modified to clarify that the objective of this Phase I investigation only addresses characterization of sources and soil contamination. It must be noted that sampling within the vadose zone is within the scope of this Phase I investigation. Sampling at specific depth intervals will provide information for determining if soils within the vadose zone constitute a source to ground water contamination. Extent of soil contamination will be addressed in Phase II investigation.

Section 4.1.1, Radiation Walkover Survey and Sample Location, page 34. This section must specify the radiation monitors to be used for surveying surface soils radiation. EPA recommends to review and evaluate the different techniques used for OU 2 to ensure that the selected radiation monitors are in fact the best available techniques.

Section 4.1.2, Borehole Locations and Sample Interval, page 36. This section must explain in detail the rationale or basis for the number and location of the boreholes. EPA recommends DOE

carefully review historical information on the location of irrigating pipes during operation of the West Spray Field and carefully study and interpret information from previous sampling programs (surface soil sampling and test pits sampling) such as sampling locations and contamination levels. Only with this approach can a reliable field sampling program be developed.

Sampling and analysis procedures must be consistent with the SOPs and the QAPjP. The master analyte list included in the QAPjP will be used, unless agreement among EPA, CDH and DOE to shorter the list is reached. If this is the case, then the workplan must present a proper justification.

Section 4.2.1, Soil Sampling Methods, page 38. This section must make reference to appropriate SOPs. If sampling procedures to be used for this workplan are different than those identified within the SOPs, then a SOPA detailing the procedure to be followed must be submitted for EPA and CDH approval.

section 4.2.2.1, Geochemical Sample Parameters, page 39. This section must describe in detail the justification for using the chemical indicator parameters presented in Table 4-1 (Appendix B) instead of the master analyte list included in the QAPjP.

Section 5.0, Phase I RFI/RI Plan Activity Schedule, page 40. The plan activity schedule needs to include specific dates for each of the activities outlined in Figure 5-1. Special care should be taken to ensure that the expected dates are appropriate to meet IAG milestones.

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